

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (use several sheets if necessary) (PTO-1449)	ATTY. DOCKET NO. 19603/3357		SERIAL NO. To Be Assigned
	APPLICANT Barany et al.		
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPRO- PRIATE
PP ↓	1	5,143,854	9/1/1992	Pirung et al.			
	2	5,202,231	4/13/1993	Drmanac et al.			
	3	5,258,506	11/2/1993	Urdea et al.			
	4	5,288,468	2/22/1994	Church et al.			
	5	5,371,241	12/6/1994	Brush et al.			
	6	5,424,186	6/13/1995	Fodor et al.			
	7	5,278,298	1/11/1994	Chakraborty et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE
PP ↓	8	WO 89/10977	16-NOV-89	Europe			
	9	WO 90/15070	13-DEC-90	Europe			
	10	WO 92/10588	25-JUN-92	Europe			
	11	WO 92/16655	1-OCT-92	PCT			
	12	EP 0 601 714 A1	15-JUN-94	Europe			

## OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

PP ↓	13	Day et al., "Detection of Steroid 21-Hydroxylase Alleles Using Gene-Specific PCR and a Multiplexed Ligation Detection Reaction," <u>Genomics</u> , 29:152-162 (1995)
	14	Grossman et al., "High-Density Multiplex Detection of Nucleic Acid Sequences: Oligonucleotide Ligation Assay and Sequence-Coded Separation," <u>Nucleic Acids Research</u> , 22(21):4527-4534(1994)
	15	Jin et al., "Alternating Current Impedance Characterization of the Structure of Alkylsiloxane Self-Assembled Monolayers on Silicon," <u>Langmuir</u> , 10:2662-2671 (1994)
	16	Cheng et al., "In Situ Attenuated Total Reflectance Fourier Transform Infrared Spectroscopy of Carboxylate-Bearing, Siloxane-Anchored, Self-Assembled Monolayers: A Study of Carboxylate Reactivity and Acid-Base Properties," <u>Langmuir</u> , 11:1190-1195 (1995)
EXAMINER P. Ponnamban		DATE CONSIDERED 2/17/04

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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPRO- PRIATE
PP ↓ ✓	17	5,290,925	3/1/1994	Fino			
	18	5,324,633	6/28/1994	Fodor et al.			
	19	5,352,582	10/4/1994	Lichtenwalter et al.			
	20	5,405,783	4/11/1995	Pirung et al.			
	21	5,470,705	11/28/1995	Grossman et al.			
	22	5,494,810	2/27/1996	Barany et al.			
	23	5,525,464	06/11/96	Drmanac et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE
PP ↓ ✓	24	WO 93/17126	2-SEPT-93	Europe			
	25	WO 93/20236	14-OCT-93	Europe			
	26	WO 94/17210	4-AUG-94	Europe			
	27	WO 94/17206	4-AUG-94	Europe			
	28	WO 94/11530	26-MAY-94	Europe			

## OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

PP ↓ ✓	29	Kim et al., "Polymeric Self-Assembled Monolayers. 2. Synthesis and Characterization of Self-Assembled Polydiacetylene Mono- and Multilayers," J. Am. Chem. Soc., 117:3963-3967 (1995)
	30	Lauer et al., "Cloning, Nucleotide Sequence, and Engineered Expression of <i>Thermus thermophilus</i> DNA Ligase, a Homolog of <i>Escherichia coli</i> DNA Ligase," Journal of Bacteriology, 173(16):5047-5053 (1991)
	31	Barany et al., "Cloning, Overexpression and Nucleotide Sequence of a Thermostable DNA Ligase-Encoding Gene," Gene, 109:1-11 (1991)
	32	Jou et al., "Deletion Detection in the Dystrophin Gene by Multiplex Gap Ligase Chain Reaction and Immunochromatographic Strip Technology, Human Mutation, 5:86-93 (1995)
	33	Chan et al., "Polymeric Self-Assembled Monolayers. 3. Pattern Transfer by Use of Photolithography, Electrochemical Methods, and an Ultrathin, Self-Assembled Diacetylenic Resist," J. Am. Chem. Soc., 117:5875-5976 (1995)
EXAMINER P. Ponnathuri		DATE CONSIDERED 2/17/04
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPRO- PRIATE
	34	5,412,087	05/02/95	McGall et al.			
	35	4,883,750	11/28/89	Whiteley et al.			
	36	4,683,202	07/28/87	Mullis et al.			
	37	5,744,305	04/28/98	Fodor et al.			
	38	5,695,934	12/09/97	Brenner			
	39	5,981,176	11/09/99	Wallace			
	40	5,415,839	5/16/95	Zaun et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE
	41	WO 94/09022	04/28/94	WO			
	42	WO 90/11372	4/1990	WO			
	43	WO 93/25563	12/1993	WO			

## OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

		44	Munkholm et al., "Polymer Modification of Fiber Optic Chemical Sensors as a Method of Enhancing Fluorescence Signal for pH Measurement," <u>Anal. Chem.</u> , 58:1427-1430 (1986)
		45	Graham et al., "Gene Probe Assays on a Fibre-Optic Evanescent Wave Biosensor," <u>Biosensors &amp; Bioelectronics</u> , 7:487-493 (1992)
		46	Chetverin et al., "Sequencing of Pools of Nucleic Acids on Oligonucleotide Arrays," <u>BioSystems</u> , 30:215-231 (1993)
		47	Pease et al., "Light-Generated Oligonucleotide Arrays for Rapid DNA Sequence Analysis," <u>Proc. Natl. Acad. Sci. USA</u> , 91:5022-5026 (1994)
		48	Beattie et al., "Advances in Genosensor Research," <u>Clin. Chem.</u> , 41(5) 700-706 (1995)
EXAMINER		DATE CONSIDERED	
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPRO- PRIATE
PP ↓ ✓	49	5,834,181	11/10/98	Shuber			
	50	5,648,213	7/15/97	Reddy et al.			
	51	5,667,974	9/16/97	Brikenmeyer			
	52	5,391,480	2/21/95	Davis et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE

## OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

PP ↓ ✓	53	Bains, "Mixed Hybridization and Conventional Strategies for DNA Sequencing," <u>Gata</u> , 10(3-4):84-94 (1993)
	54	Kuznetsova et al., "DNA Sequencing by Hybridization with Oligonucleotides Immobilized in a Gel," <u>Mol. Biol. (Mosk)</u> (Russia), 28(2):290-299
	55	Lysov et al., "Measurement of Distances Between DNA Segments Increases the Efficiency of Sequencing by Hybridization with Oligonucleotide Matrix," <u>Molecular Biology</u> , 28(3):433-436 (1994)
	56	Livshits et al., "Dissociation of Duplexes Formed by Hybridization of DNA with Gel-Immobilized Oligonucleotides," <u>Journal of Biomolecular Structure &amp; Dynamics</u> , 11(4):783-812 (1994)
	57	Davis et al., "Quantitative Detection of Hepatitis C Virus RNA With a Solid-phase Signal Amplification Method: Definition of Optimal Conditions for Specimen Collection and Clinical Application in Interferon-treated Patients," <u>Hepatology</u> , 19(6):1337-1341 (1994)
	58	Urdea, "Synthesis and Characterization of Branched DNA (bDNA) for the Direct and Quantitative Detection of CMV, HBV, HCV, and HIV," <u>Clinical Chemistry</u> , 39(4):725-726 (1993)
✓	59	Reynolds et al., "Analysis of Genetic Markers in Forensic DNA Samples Using the Polymerase Chain Reaction," <u>Anal. Chem.</u> , 63:2-15 (1991))
EXAMINER <i>P. Ponnalan</i>		DATE CONSIDERED <i>2/17/04</i>
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## U.S. PATENT DOCUMENTS

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PP	60	6,027,889	2/22/00	Barany et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE

## OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

PP	61	Buyse et al., "Rapid DNA Typing of Class II HLA Antigens Using the Polymerase Chain Reaction and Reverse Dot Blot Hybridization," <u>Tissue Antigens</u> , 41:1-14 (1993)
	62	Gyllenstein et al., "PCR-Based HLA Class II Typing," <u>PCR Meth. Appl.</u> , 1:91-98 (1991)
	63	Chamberlain et al., "Deletion Screening of the Duchenne Muscular Dystrophy Locus Via Multiplex DNA Amplification," <u>Nucleic Acids Res.</u> , 16:11141-56 (1988)
	64	Tsui, Mutations and Sequence Variations Detected in the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) Gene: A Report From the Cystic Fibrosis Genetic Analysis Consortium," <u>Human Mutat.</u> , 1:197-203 (1992)
	65	Hollstein et al., "p53 Mutations in Human Cancers," <u>Science</u> , 253:49-53 (1991)
	66	Saiki, et al., "Enzymatic Amplification of $\beta$ -Globin Genomic Sequences and Restriction Site Analysis for Diagnosis of Sickle Cell Anemia," <u>Science</u> , 230:1350 (1985)
	✓	67
EXAMINER P. Ponnambun		DATE CONSIDERED 2/17/04
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## OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

PP	68	Landegren, et al., "A Ligase-Mediated Gene Detection Technique," <u>Science</u> , 241:1077-80 (1988)
	69	Winn-Deen, et al., "Sensitive Fluorescence Method for Detecting DNA Ligation Amplification Products," <u>Clinical Chemistry</u> , 37(9):1522-23 (1991)
	70	Barany, "Genetic Disease Detection and DNA Amplification Using Cloned Thermostable Ligase," <u>Proc. Nat'l Acad. Sci. USA</u> , 88:189-93 (1991)
	71	Barany, "The Ligase Chain Reaction in a PCR World," <u>PCR Methods and Applications</u> , 1:5-16 (1991)
	72	Gibbs et al., "Detection of Single DNA Base Differences by Competitive Oligonucleotide Priming," <u>Nucleic Acids Res.</u> , 17:2437-48 (1989)
	73	Chehab, et al., "Detection of Specific DNA Sequences by Fluorescence Amplification: A Color Complementation Assay," <u>Proc. Natl. Acad. Sci. USA</u> , 86:9178-82 (1989)
	✓	74
EXAMINER <i>P. Ponnambur</i>		DATE CONSIDERED <i>2/17/04</i>
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## OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

PP ✓	75	Nickerson et al., "Automated DNA Diagnostics Using an ELISA-Based Oligonucleotide Ligation Assay," <u>Proc. Natl. Acad. Sci. USA</u> , 87:8923-27 (1990)
	76	Cronin et al., "Cystic Fibrosis Mutation Detection by Hybridization to Light-Generated DNA Probe Arrays," <u>Human Mutation</u> , 7:244-255 (1996)
	77	Milner et al., "Selecting Effective Antisense Reagents on Combinatorial Oligonucleotide Arrays," <u>Nature Biotechnology</u> , 15:537-541 (1997)
	78	Wang et al., "Large-Scale Identification, Mapping, and Genotyping of Single-Nucleotide Polymorphisms in the Humane Genome," <u>Science</u> , 280:1077-1082 (1998)
	79	Southern, "DNA Chips: Analysing Sequence by Hybridization to Oligonucleotides on a Large Scale," <u>TIG</u> , 12(3):110-115 (1996)
	80	Barany, "Ligase Chain Reaction (LCR) - Overview and Applications," <u>PCR Methods and Applications</u> , 3(4):S51-S64 (1994)
	81	Iovannisci et al., "Ligation Amplification and Fluorescence Detection of Mycobacterium Tuberculosis DNA," <u>Mol. Cell. Probes</u> , 7(1):35-43 (1993)
EXAMINER P. Pounaluri		DATE CONSIDERED 2/17/00
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## OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

PP ↓	82	Telenti et al., "Competitive Polymerase Chain Reaction Using an Internal Standard: Application to the Quantitation of Viral DNA," <i>J. Virol. Meth.</i> , 39(3):259-268 (1992)
	83	Guo et al., "Direct Fluorescence Analysis of Genetic Polymorphisms by Hybridization with Oligonucleotide Arrays on Glass Supports," <i>Nucl. Acids. Res.</i> , 22(24):5456-5465 (1994)
	84	Sambrook et al., <i>Molecular Cloning A Laboratory Manual</i> , 2 <sup>nd</sup> Ed., Cold Spring Laboratory Press (1989)
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